

## **Executive Summary**

This Supplement to the President's Fiscal Year (FY) 2007 Budget provides a technical summary of the budget request for the Networking and Information Technology Research and Development (NITRD) Program, as required by the High-Performance Computing Act of 1991 (P.L. 102-194) and the Next Generation Internet Research Act of 1998 (P.L. 105-305). The NITRD Program, now in its 15th year, represents the coordinated efforts of many Federal agencies that support R&D in networking and information technology. The NITRD enterprise is an Administration interagency R&D budget priority for FY 2007.

The Supplement to the President's Budget for the NITRD Program describes current technical and coordination activities and FY 2007 plans of the 12 Federal agencies in the NITRD budget crosscut, as well as those of other agencies that are not part of the formal crosscut but participate in NITRD activities. In the NITRD Program, the term "agency" may refer to a department, a major departmental subdivision, or a research office or laboratory. NITRD activities and plans are coordinated in eight Program Component Areas (PCAs): high-end computing infrastructure and applications; high-end computing research and development; cyber security and information assurance; human-computer interaction and information management; large-scale networking; high-confidence software and systems; social, economic, and workforce implications of IT and IT workforce development; and software design and productivity. Agency R&D program managers in each PCA meet monthly in an Interagency Working Group (IWG) or Coordinating Group (CG) to exchange information and coordinate technical plans and activities such as workshops and joint solicitations. Overall NITRD Program coordination is carried out by the Subcommittee on Networking and Information Technology Research and Development, under the aegis of the Committee on Technology of the National Science and Technology Council (NSTC).

Changes within the NITRD Program that are highlighted in the FY 2007 Supplement include the chartering of the High End Computing CG as an IWG, which reports to the NITRD Subcommittee, and the chartering of the Cyber Security and Information Assurance (CSIA) IWG, which reports to both the NSTC's NITRD Subcommittee and its Subcommittee on Infrastructure. This IWG succeeds the IWG on Critical Information Infrastructure Protection (CIIP), which had been chartered in August 2003 and reported to the Subcommittee on Infrastructure of the NSTC's Committee on Homeland and National Security. This year's NITRD budget also includes for the first time reporting by the High Performance Computing Modernization Program Office (HPCMPO) in the Office of the Secretary of Defense (OSD) and Department of Defense (DoD) Service research organizations.

The Administration's recently announced American Competitiveness Initiative, which calls for a doubling over 10 years of the investment in several Federal agencies that support basic research in the physical sciences and engineering, also contributes to the NITRD Program FY 2007 budget. NITRD agencies NSF, DOE/SC, and NIST show budget increases that exceed the base percentage increase in the overall Program budget (for details, please see the NITRD Program Budget Analysis beginning on page 21).

For each PCA, the NITRD Budget Supplement presents strategic priorities underlying the FY 2007 budget request, highlights of the request, ongoing and anticipated interagency planning and coordination activities, and additional technical activities, by agency. Agencies that are engaged in cited activities as funders, performers, in-kind contributors, and participants in focused coordination activities are identified, with funders and performers listed first and, following the word "with," the in-kind contributors and participants. When applicable, lead agencies are listed first. Some large-scale activities may be listed in more than one PCA because they involve R&D efforts in a variety of technologies. In such cases, agencies report the portion of program funding in each relevant PCA. Additional agency activities are reported with NITRD member agencies listed first, followed by participating agencies.